

FIG. 1

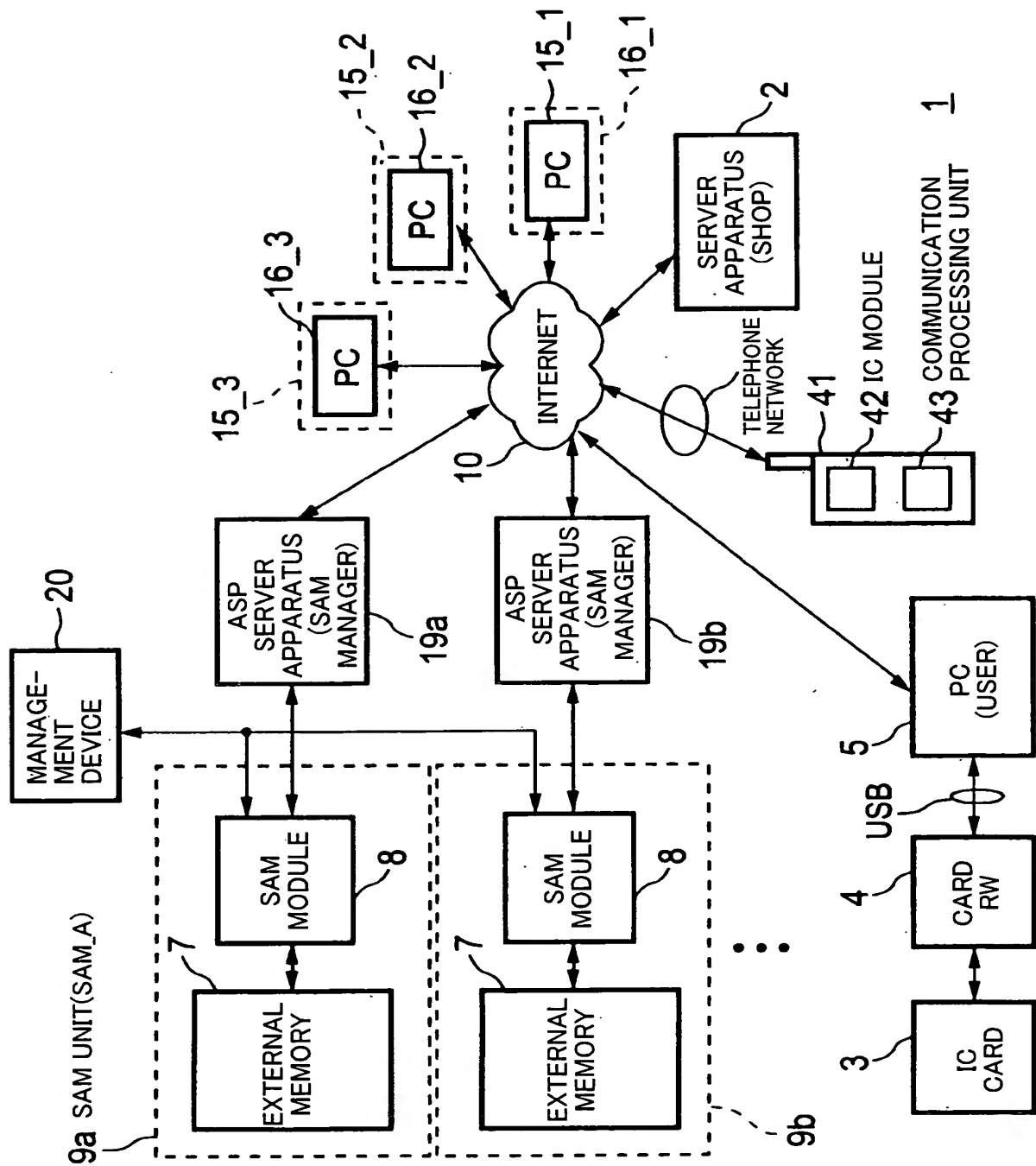


FIG. 2

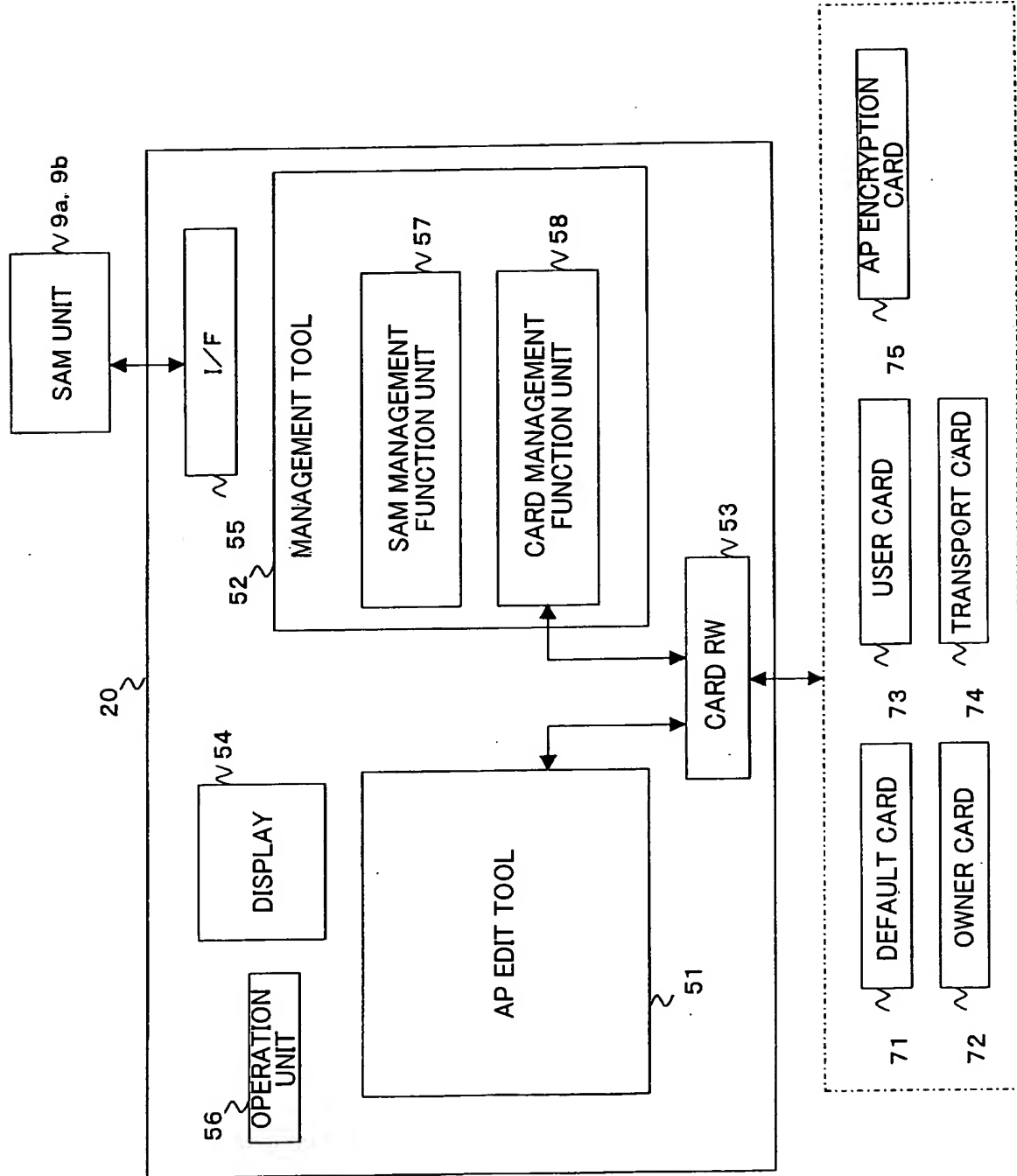


FIG. 3

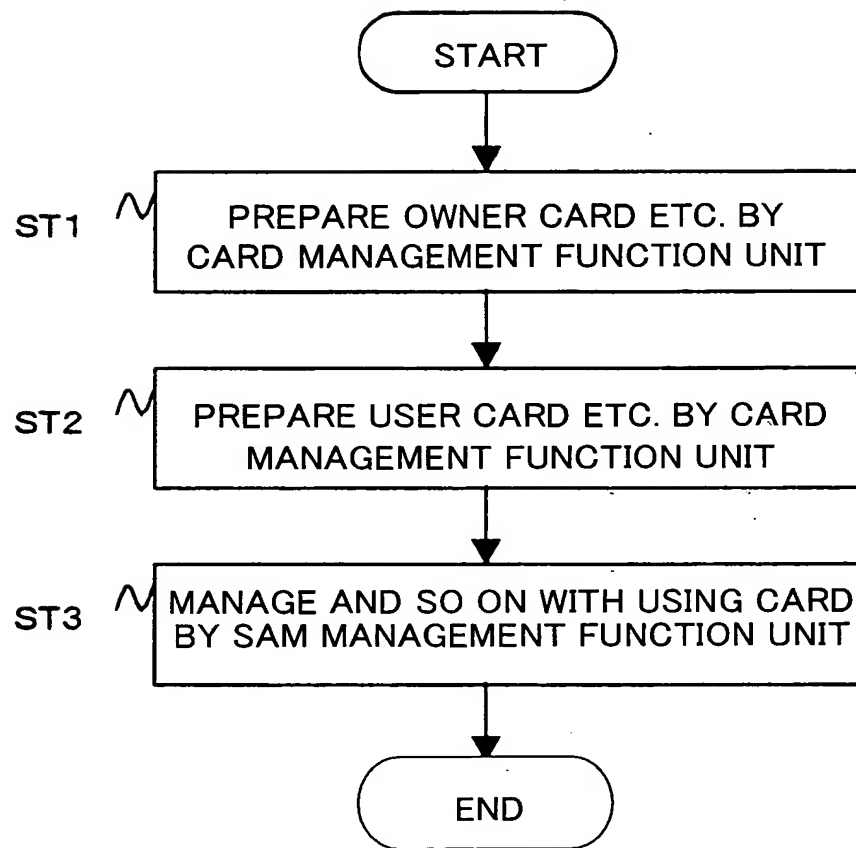


FIG. 4

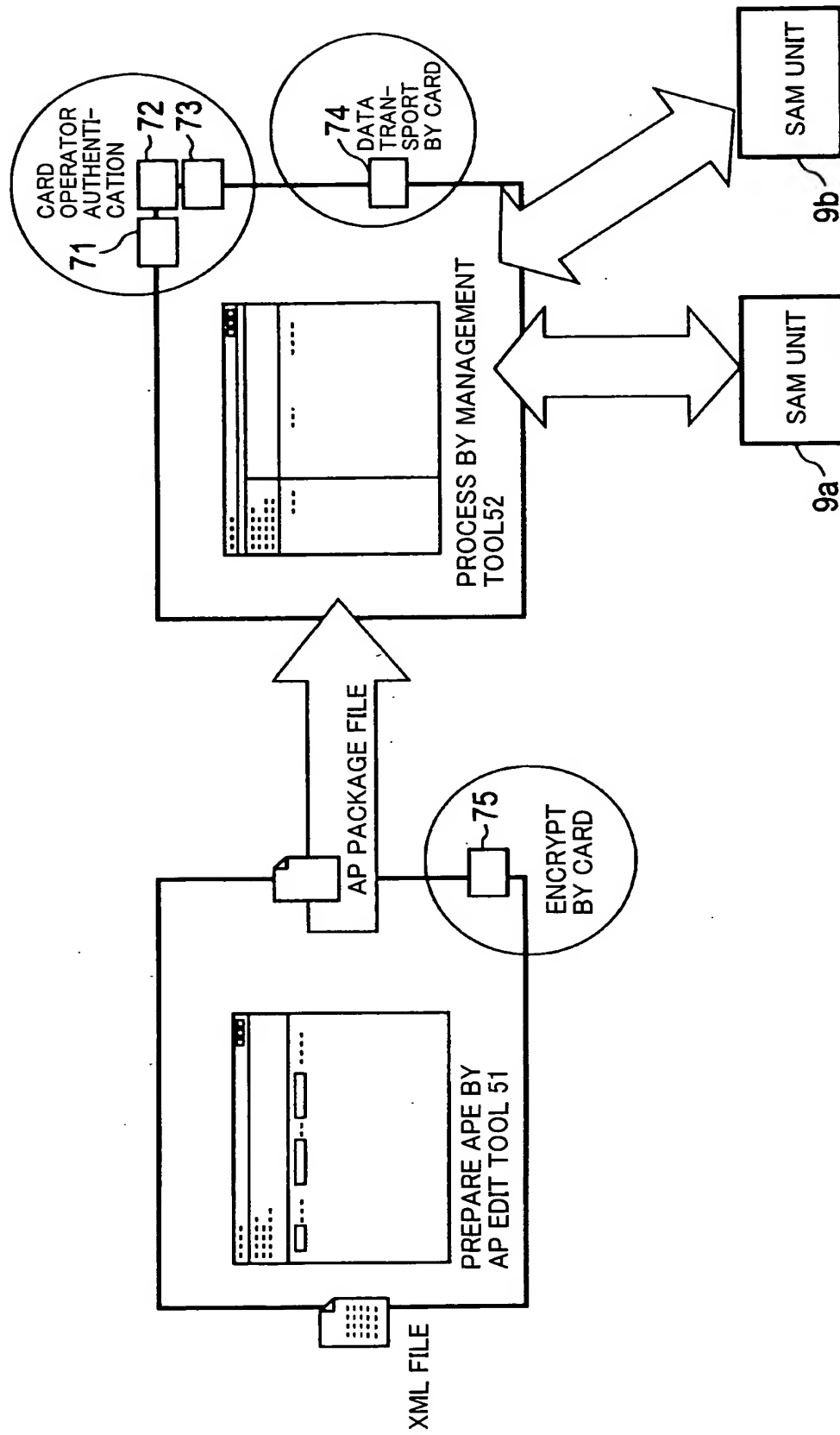


FIG. 5

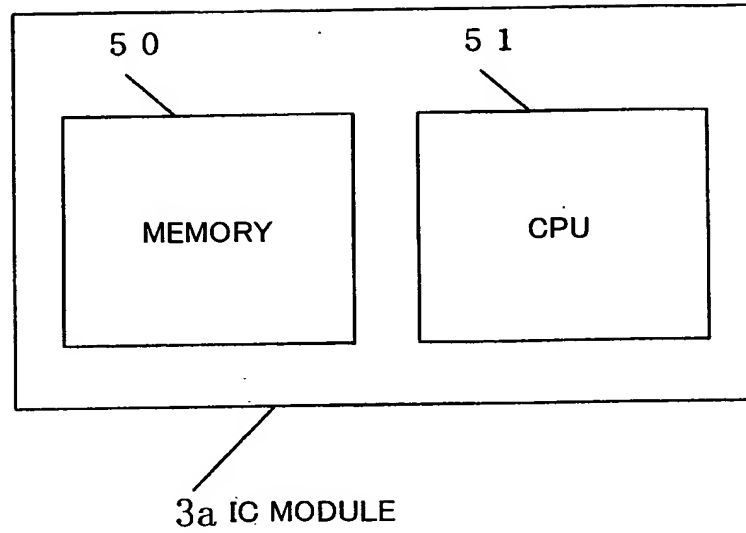


FIG. 6

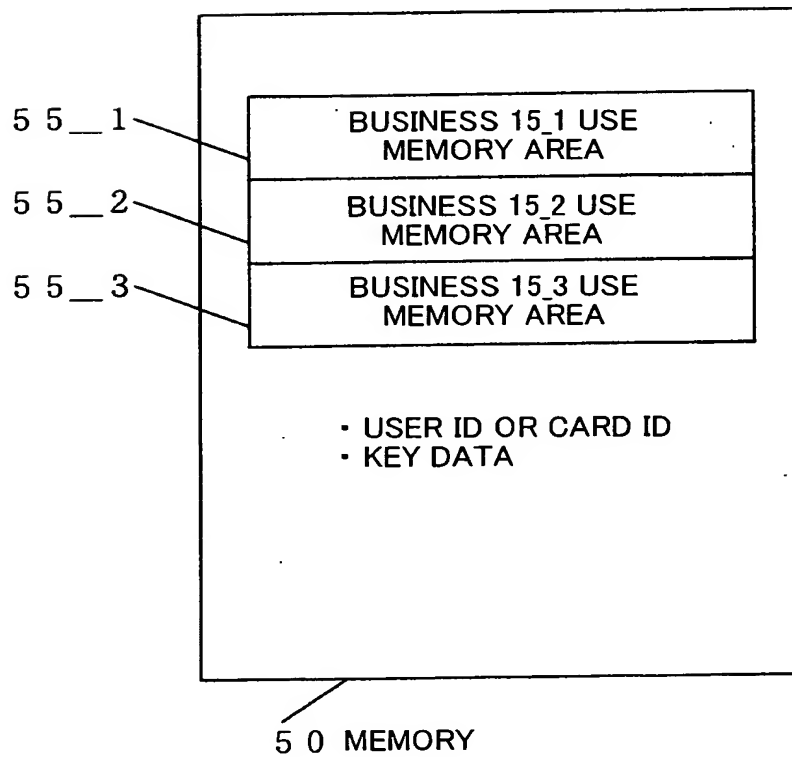


FIG. 7

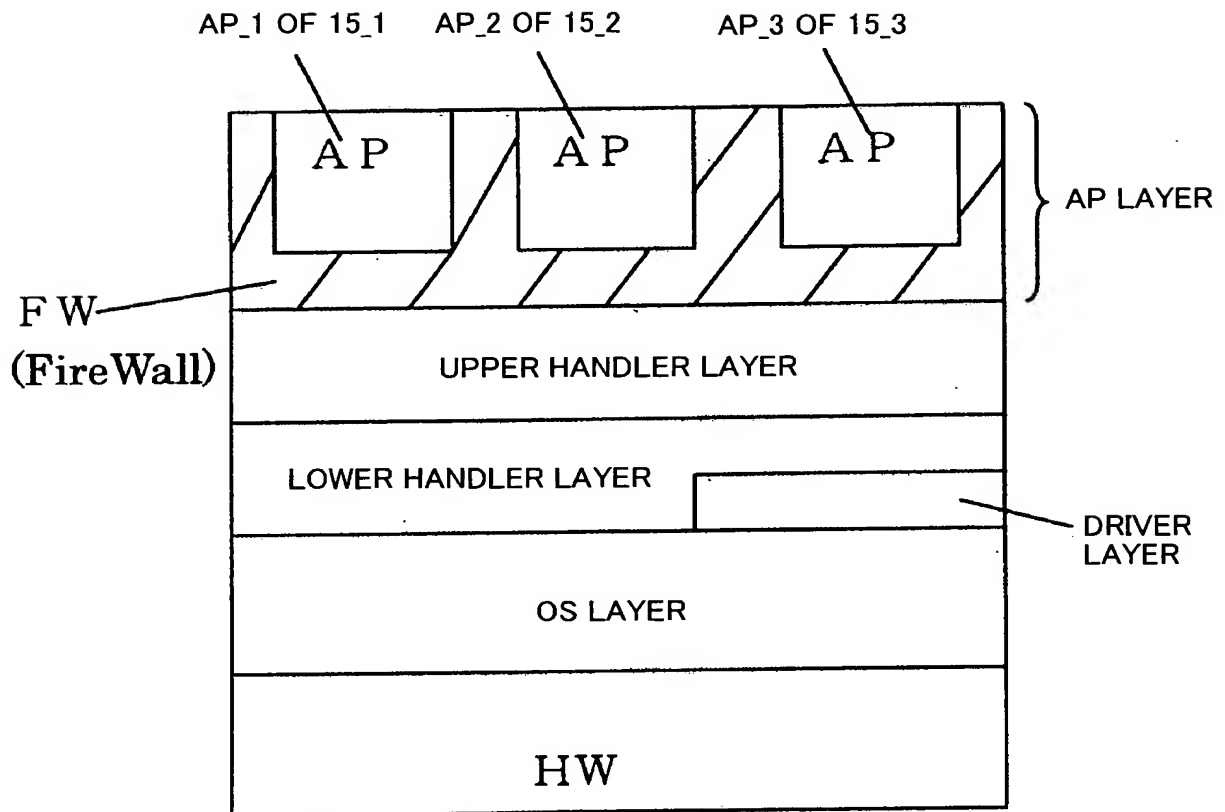


FIG. 8

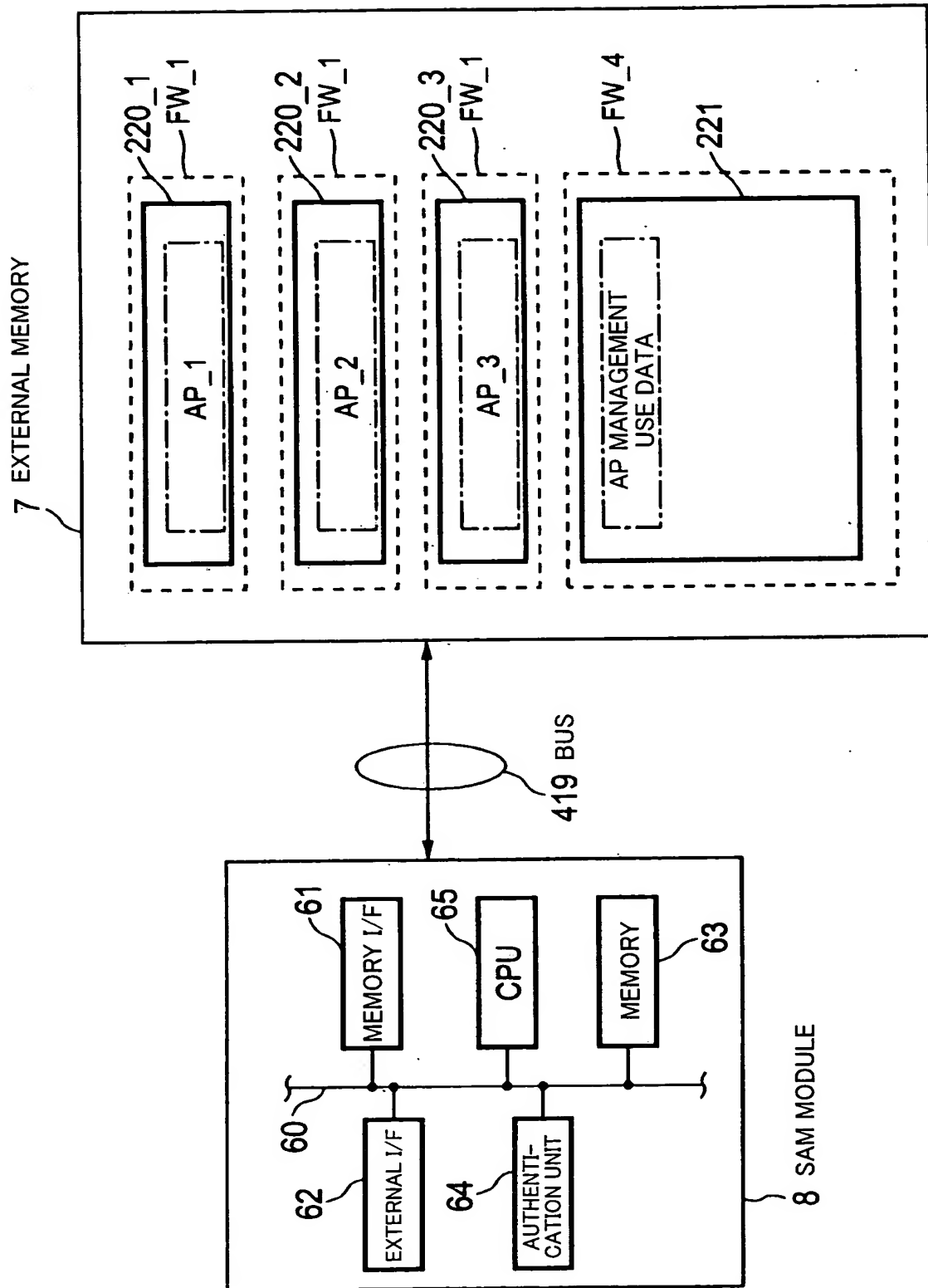


FIG. 9

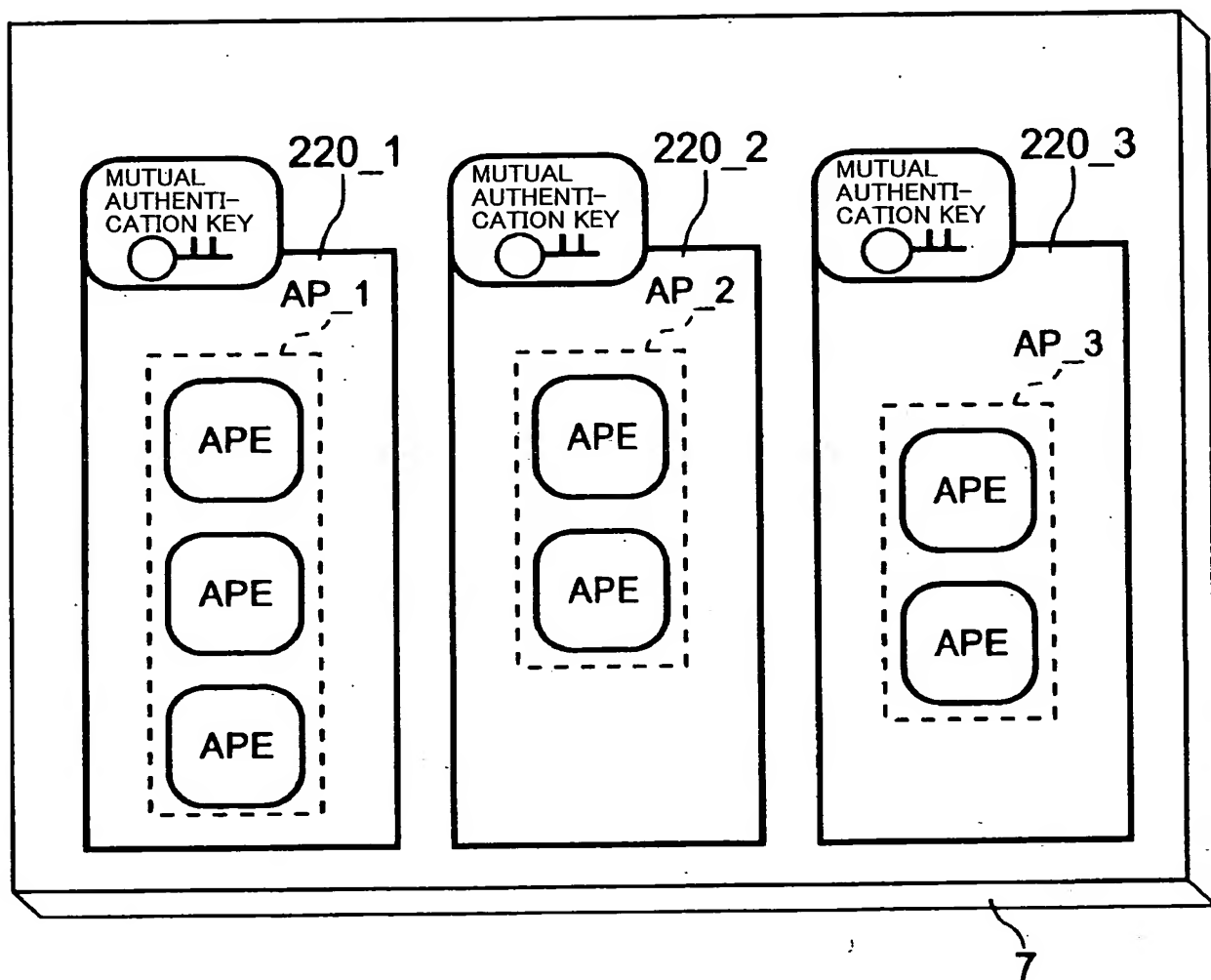




FIG. 10

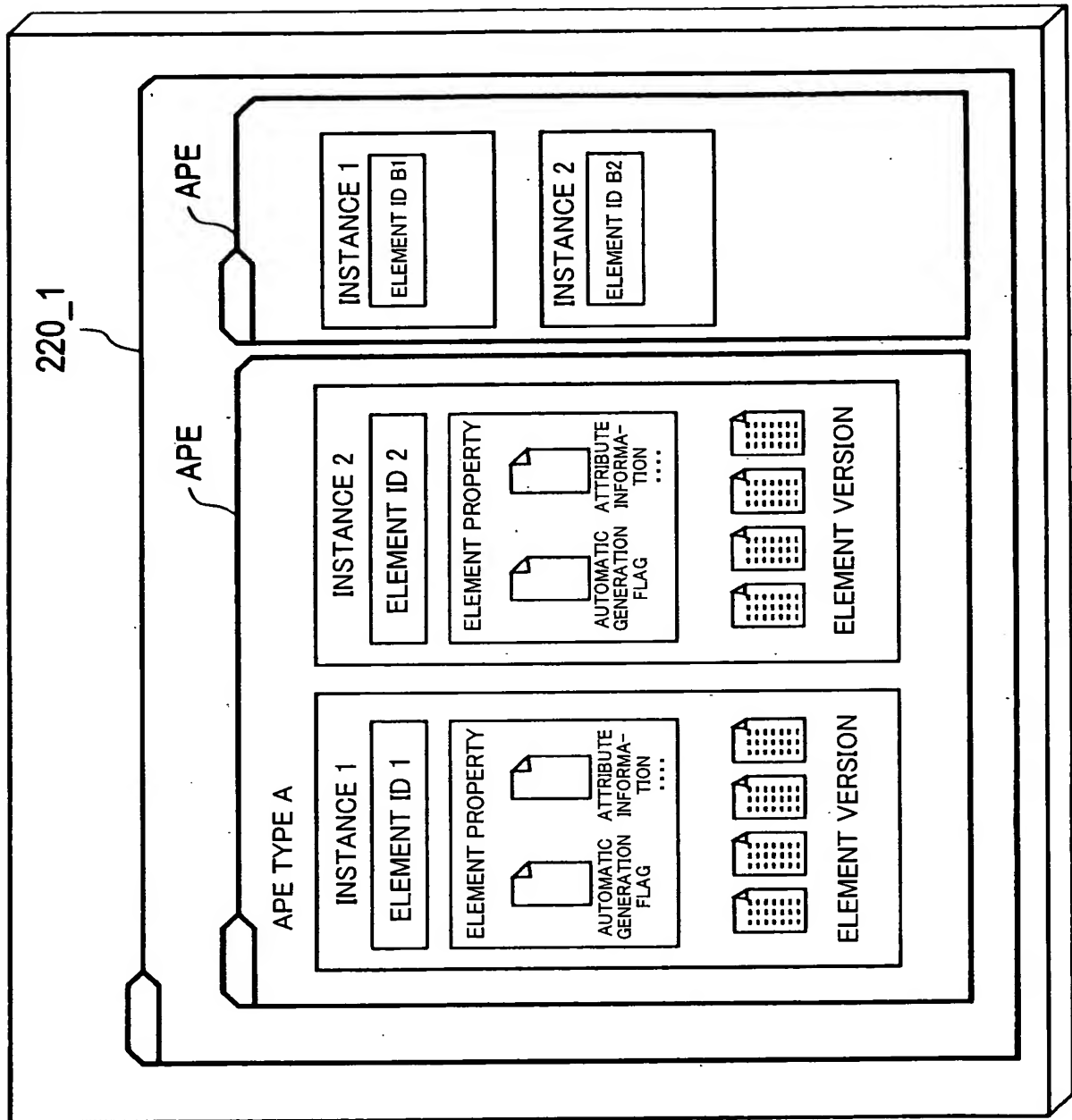


FIG. 11

APE TYPE NUMBER	APE TYPE
...	IC SYSTEM KEY
...	IC AREA KEY
...	IC SERVICE KEY
...	IC SYNTHETIC KEY
...	IC KEY CHANGE PACKAGE
...	IC ISSUANCE KEY PACKAGE
...	IC EXPANSION ISSUANCE KEY PACKAGE
...	IC AREA REGISTRATION KEY PACKAGE
...	IC AREA DELETION KEY PACKAGE
...	IC SERVICE REGISTRATION KEY PACKAGE
...	IC SERVICE DELETION KEY PACKAGE
...	IC MEMORY DIVISION KEY PACKAGE
...	IC MEMORY DIVISION ELEMENT KEY PACKAGE
...	OBSTACLE RECORDING FILE
...	MUTUAL AUTHENTICATION USE KEY
...	PACKAGE KEY
...	NEGATIVE LIST
...	SERVICE DATA TEMPORARY FILE

FIG. 12

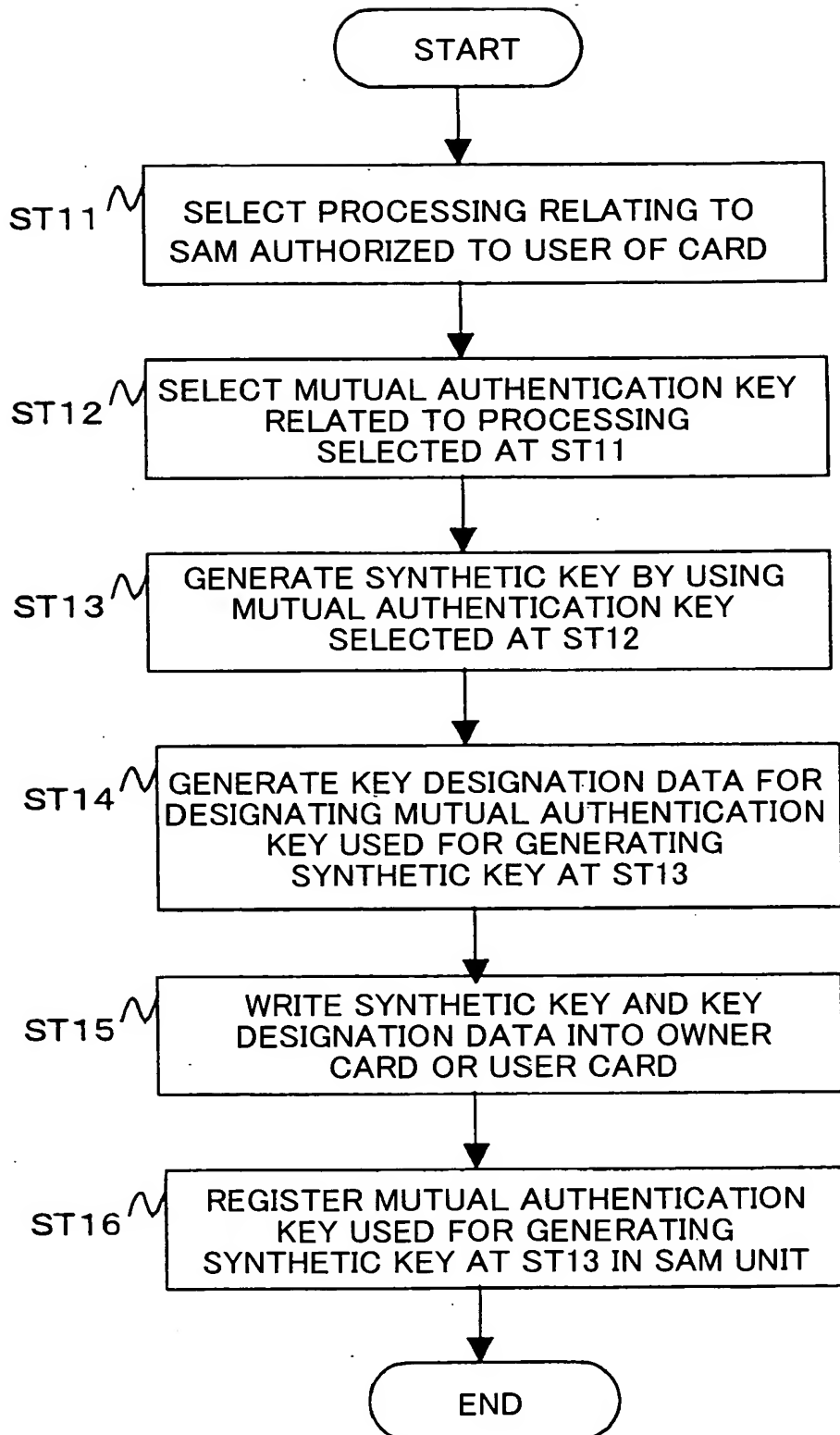


FIG. 13

MUTUAL AUTHENTICATION KEY NAME	AP MEMORY AREA -ID	APE TYPE NUMBER	INSTANCE NUMBER	ELEMENT VERSION
DEVICE KEY	...	...	...	...
TERMINATION KEY	...	...	...	...
MANUFACTURER SETTING SERVICE MUTUAL AUTHENTICATION KEY	...	...	...	...
HARDWARE MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY	...	...	...	...
COMMUNICATION MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY	...	...	...	...
MUTUAL AUTHENTICATION SERVICE MUTUAL AUTHENTICATION KEY	...	...	...	...
AP MEMORY AREA MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY	...	...	...	...
SERVICE AP MEMORY AREA MUTUAL AUTHENTICATION KEY	...	...	...	...
SYSTEM AP MEMORY AREA MUTUAL AUTHENTICATION KEY	...	...	...	...
MANUFACTURER AP MEMORY AREA MUTUAL AUTHENTICATION KEY	...	...	...	...

FIG. 14

AP MEMORY AREA ID	ELEMENT TYPE NUMBER	ELEMENT INSTANCE NUMBER	ELEMENT VERSION NUMBER
2 BYTES	2 BYTES	2 BYTES	2 BYTES
AP RESOURCE AREA TO WHICH IT BELONGS	MUTUAL AUTHENTICATION KEY (FIXED VALUE)	ID OF RELEASE KEY RING	VERSION NUMBER OF USED KEY

FIG. 15A

MUTUAL AUTHENTICATION KEY NAME	AP MEMORY AREA ID	APE TYPE NUMBER	INSTANCE NUMBER	ELEMENT VERSION
DEVICE KEY	...	...	...	...
HARDWARE MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY	...	...	...	...
COMMUNICATION MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY	...	...	...	...
AP MEMORY AREA MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY	...	...	...	...
SERVICE AP MEMORY AREA AP-R MUTUAL AUTHENTICATION KEY	...	...	...	...
TERMINATION KEY	...	...	...	...

• COMMAND WHICH CAN BE EXECUTED

FIG. 15B

SERVICE TYPE	COMMAND NAME
HARDWARE MANAGEMENT SERVICE	...
COMMUNICATION MANAGEMENT SERVICE	...
IC SERVICE	...
MUTUAL AUTHENTICATION SERVICE	...
AP MEMORY AREA MANAGEMENT SERVICE	...

FIG. 16

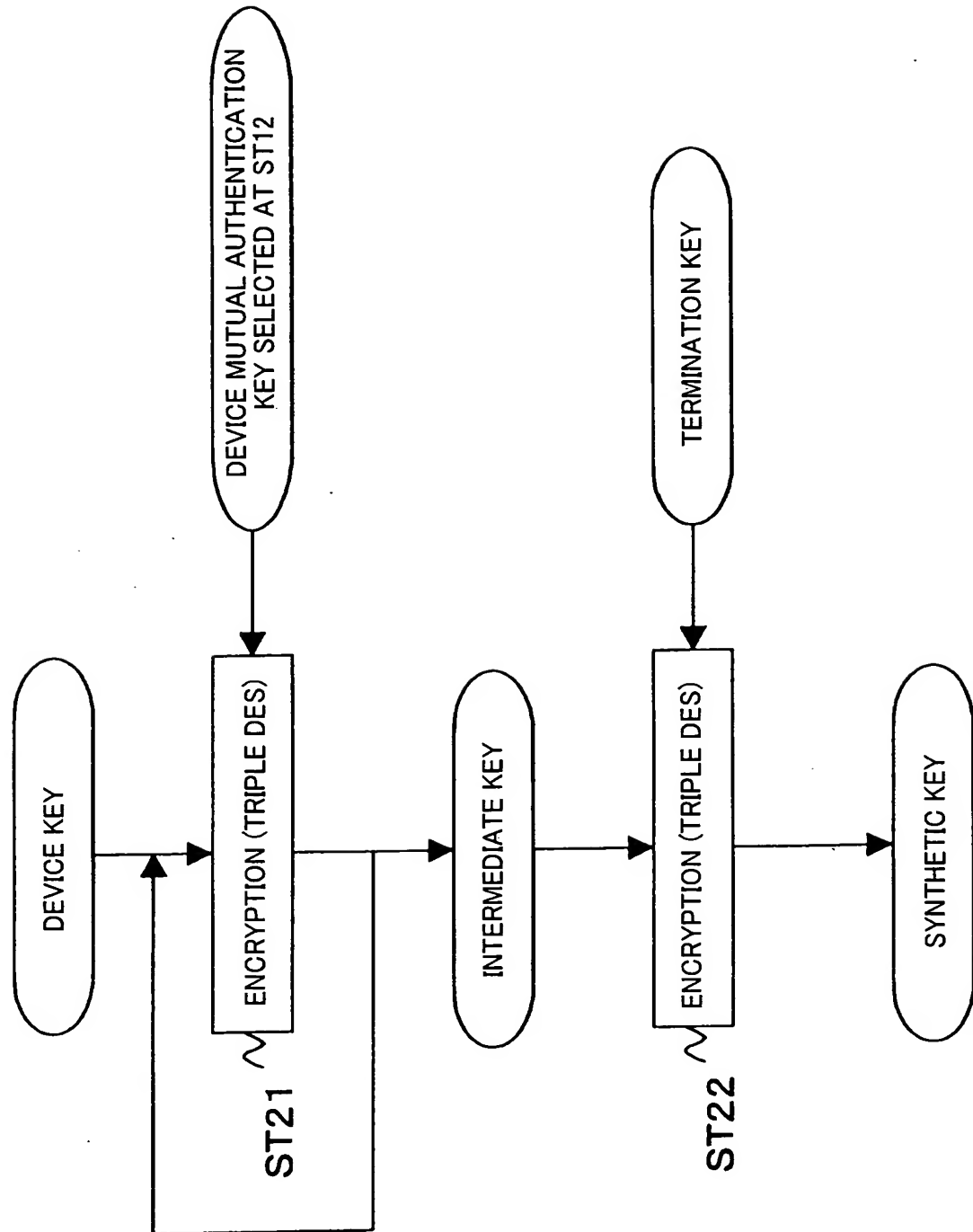


FIG. 17

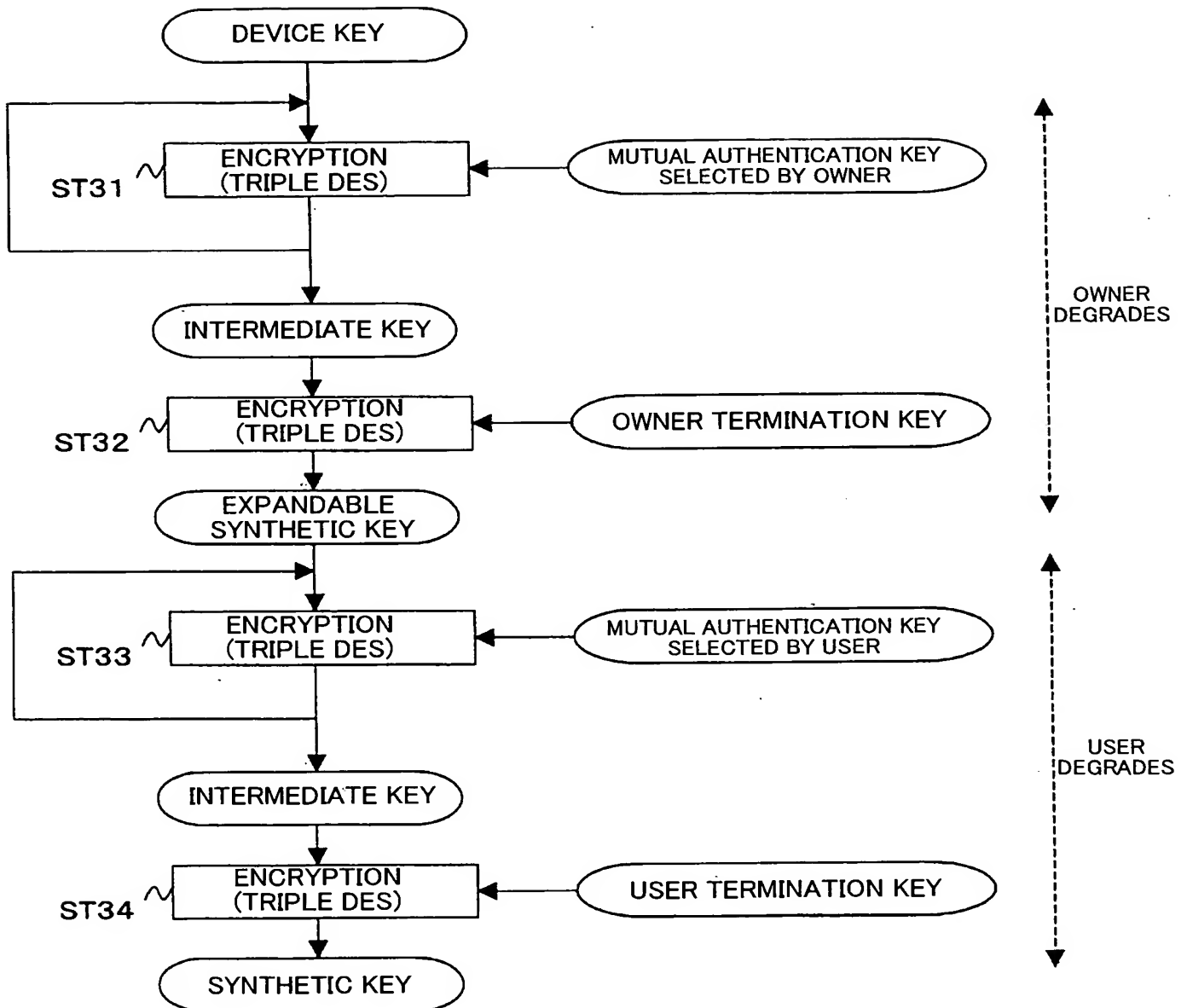




FIG. 18

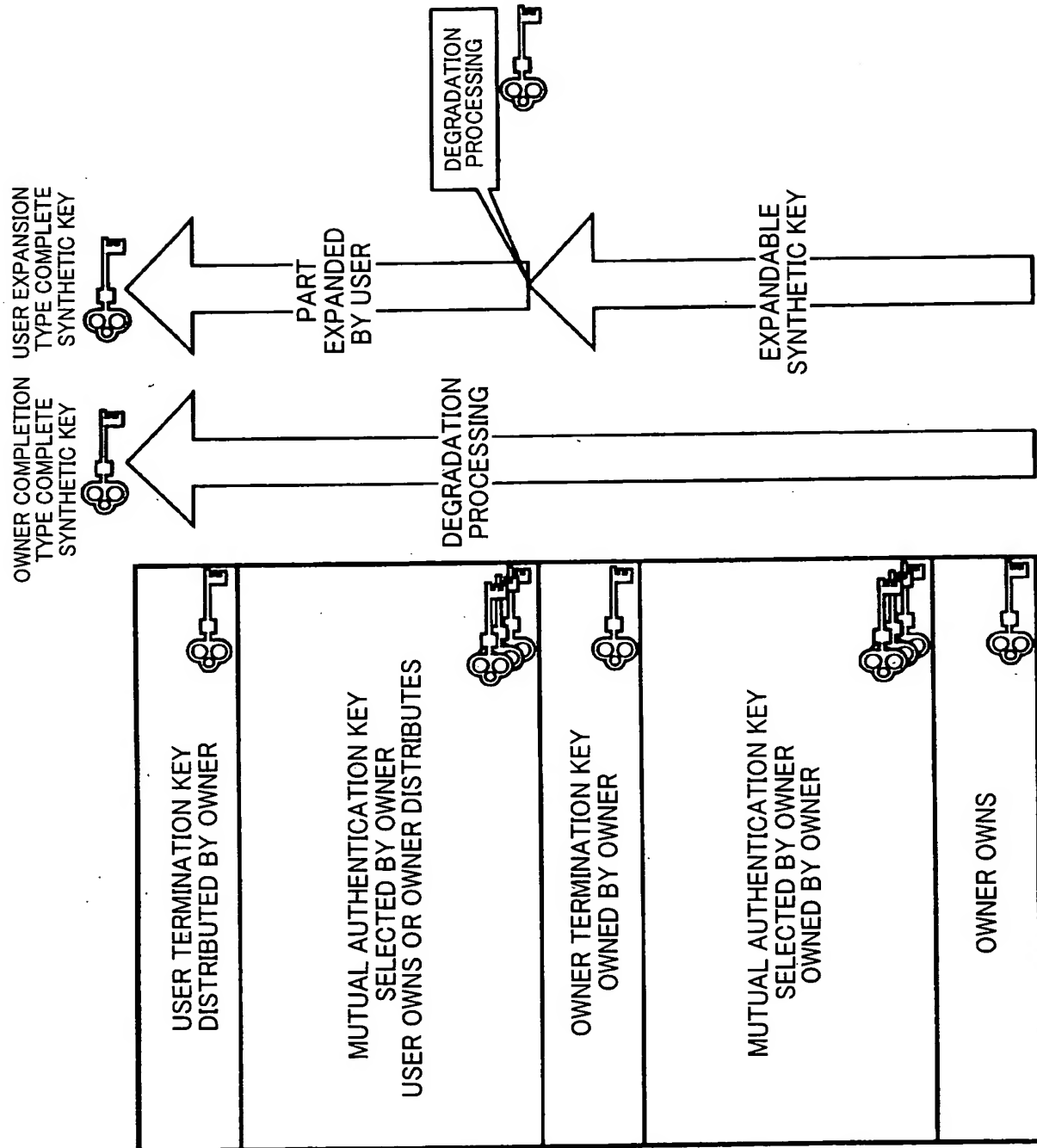


FIG. 19

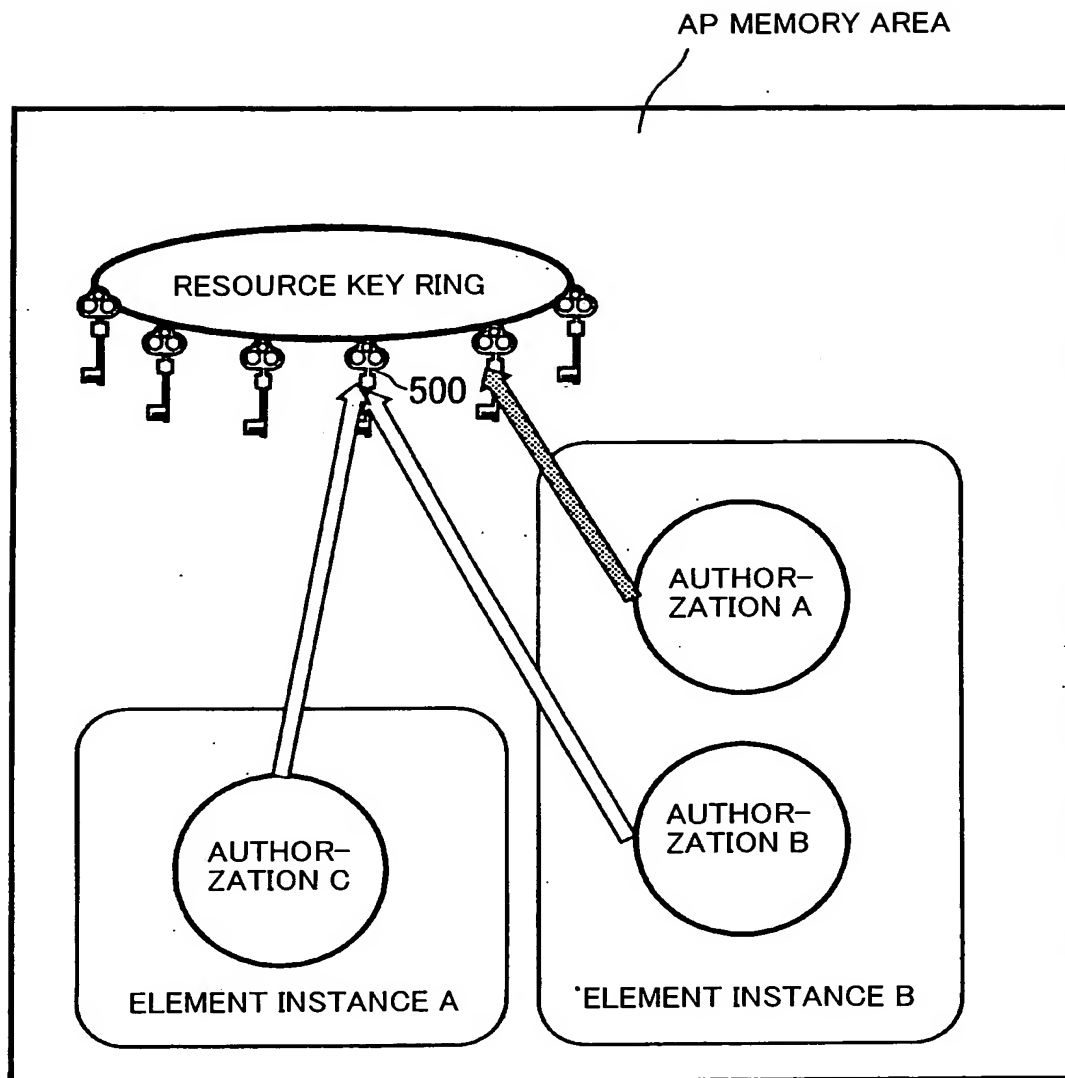


FIG. 20

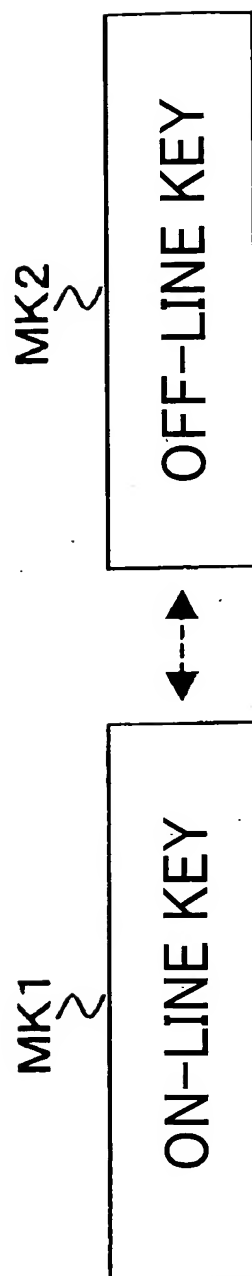


FIG. 21

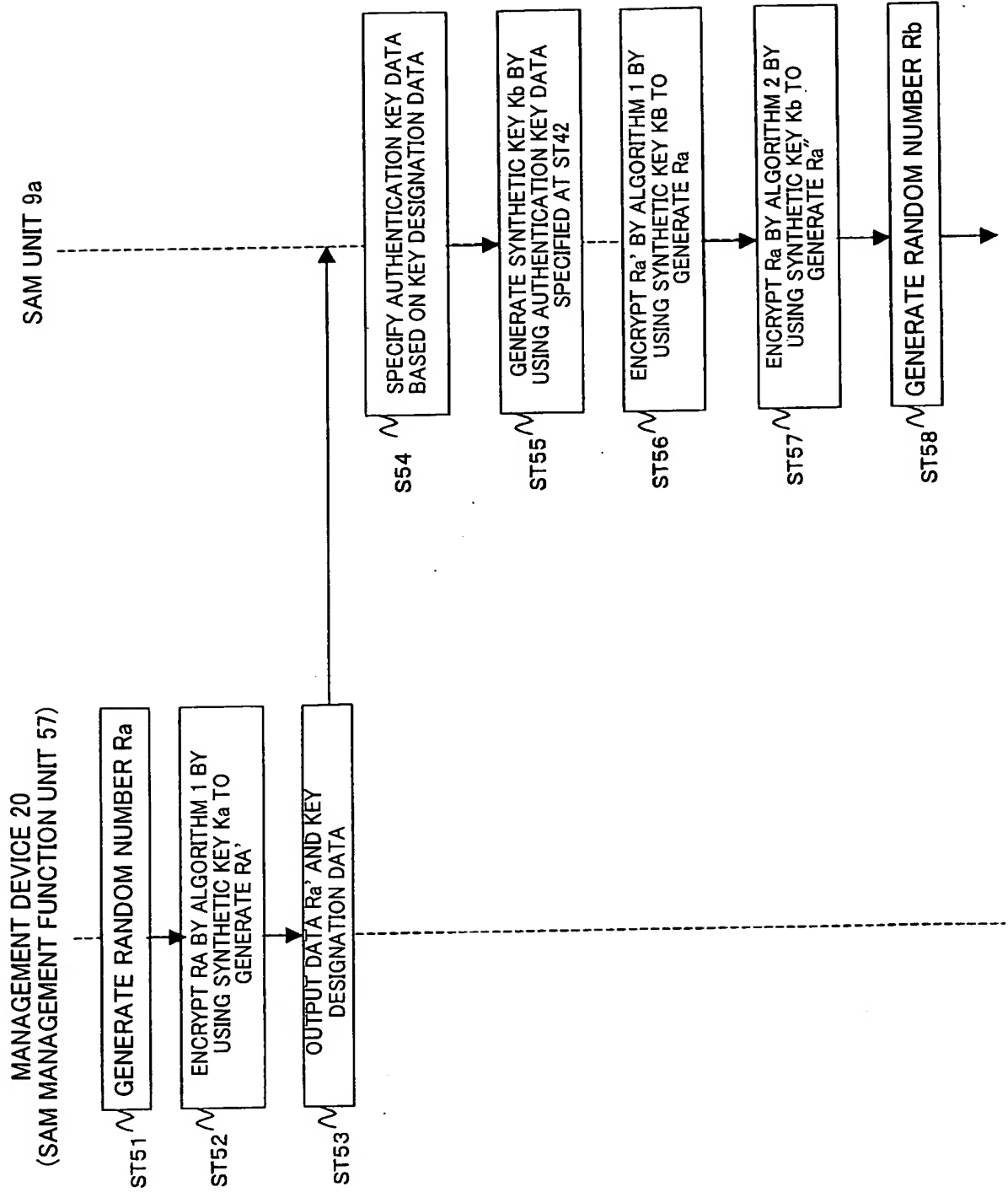


FIG. 22

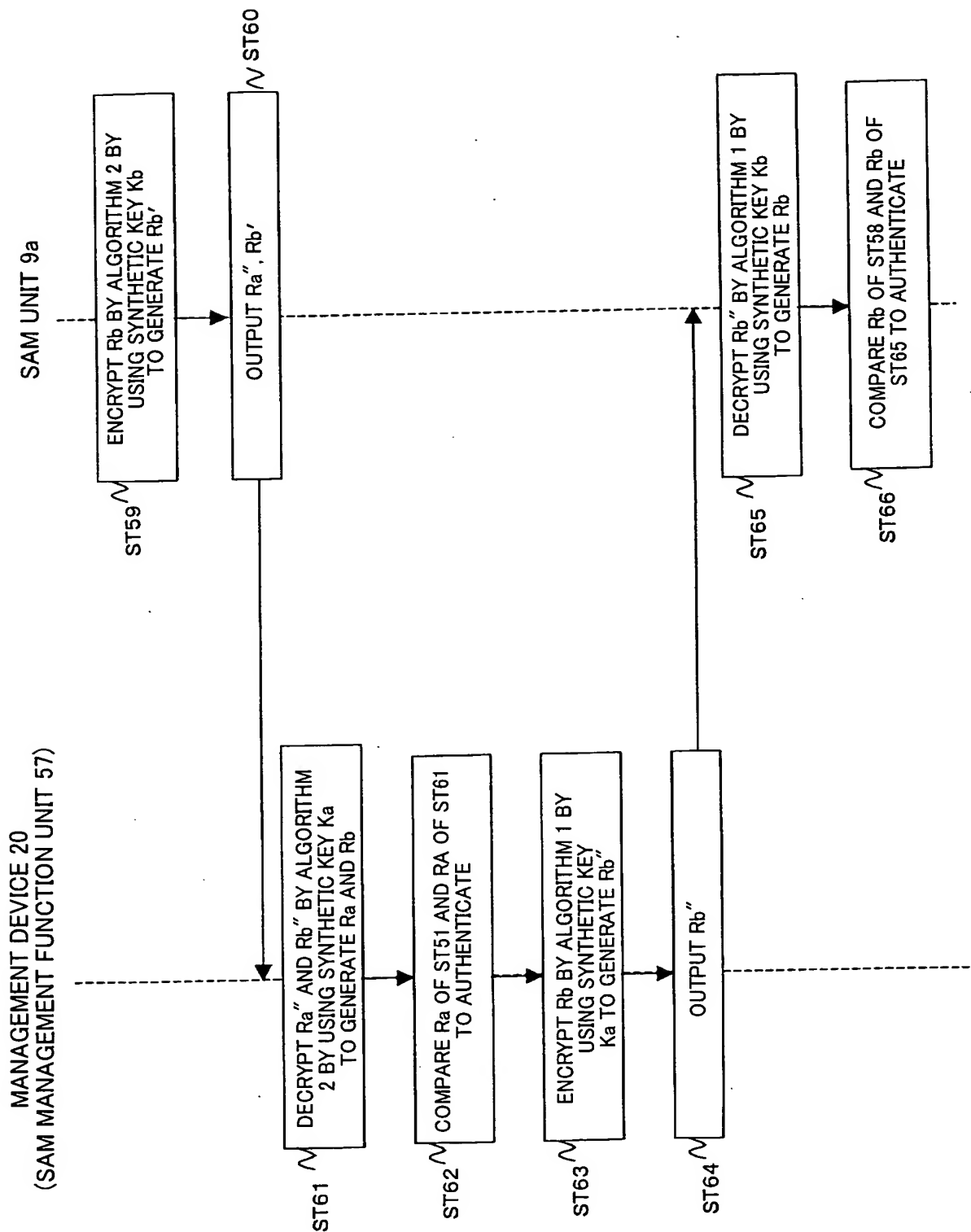


FIG. 23

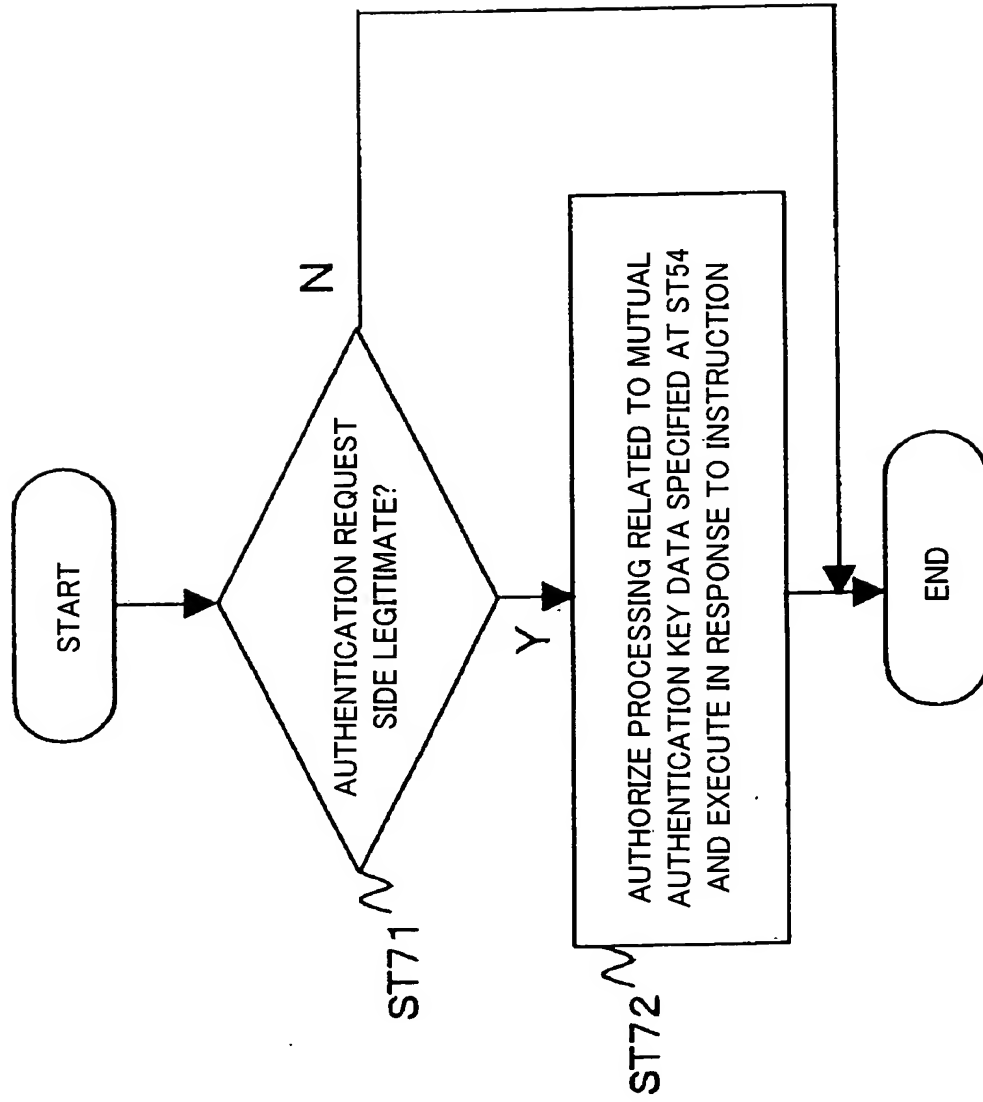


FIG. 24

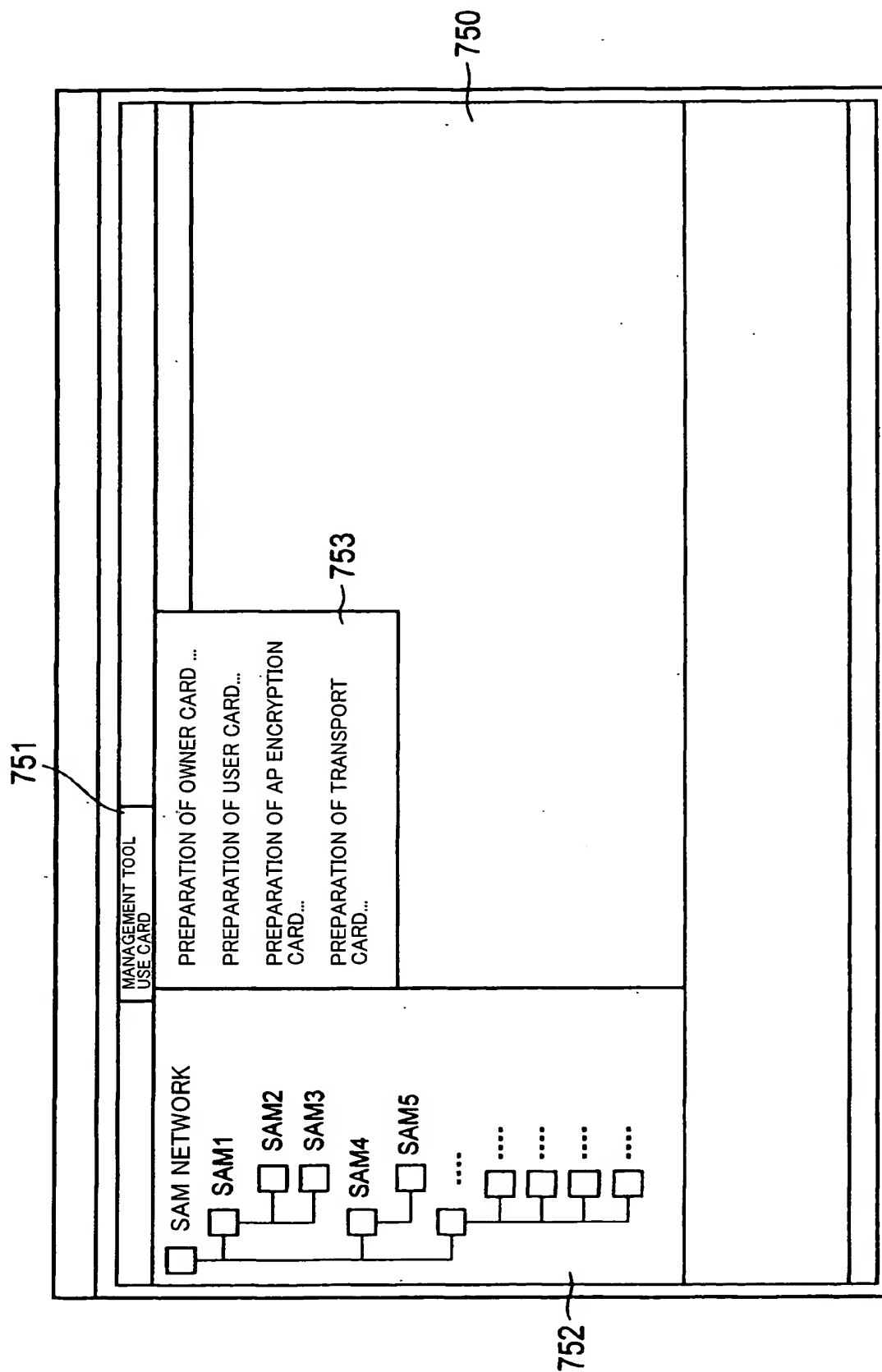


FIG. 25

PREPARATION OF OWNER CARD

☒ HARDWARE MANAGEMENT SERVICE

KEY VERSION : 0x0001 ▼

☒ COMMUNICATION MANAGEMENT SERVICE

KEY VERSION : 0x0001 ▼

☒ MUTUAL AUTHENTICATION SERVICE

KEY VERSION : 0x0001 ▼

☒ AP RESOURCE AREA MANAGEMENT SERVICE

KEY VERSION : 0x0001 ▼

☒ LOG RECORDING SERVICE

KEY VERSION : 0x0001 ▼

☒ NEGATIVE LIST SERVICE

KEY VERSION : 0x0001 ▼

SERVICE AP MEMORY AREA

☒ READING

KEY VERSION : 0x0001 ▼

☒ WRITING

KEY VERSION : 0x0001 ▼

☒ PACKAGE

KEY VERSION : 0x0001 ▼

SYSTEM AP MEMORY AREA

☒ READING

KEY VERSION : 0x0001 ▼

☒ WRITING

KEY VERSION : 0x0001 ▼

☒ PACKAGE

KEY VERSION : 0x0001 ▼

DEVICE/TERMINATION KEY

☒ DEVICE KEY

KEY VERSION : 0x0001 ▼

☒ TERMINATION KEY

KEY VERSION : 0x0001 ▼

OK

CANCEL

760

762

763

764

761

765

24/29



FIG. 26

PREPARE OOOO CARD

PLEASE SET OOOO CARD IN READER/WRITER

PREPARE CANCEL

770

771

FIG. 27

PREPARATION OF USER CARD

SELECTION OF USED SERVICE

<input type="checkbox"/>	HARDWARE MANAGEMENT SERVICE	KEY VERSION :	<input type="text" value="0x0001"/>
<input checked="" type="checkbox"/>	COMMUNICATION MANAGEMENT SERVICE	KEY VERSION :	<input type="text" value="0x0001"/>
<input checked="" type="checkbox"/>	MUTUAL AUTHENTICATION SERVICE	KEY VERSION :	<input type="text" value="0x0001"/>
<input checked="" type="checkbox"/>	AP RESOURCE AREA MANAGEMENT SERVICE	KEY VERSION :	<input type="text" value="0x0001"/>
<input type="checkbox"/>	LOG RECORDING SERVICE	KEY VERSION :	<input type="text" value="0x0001"/>
<input type="checkbox"/>	NEGATIVE LIST SERVICE	KEY VERSION :	<input type="text" value="0x0001"/>

SERVICE AP MEMORY AREA

<input type="checkbox"/>	READING	KEY VERSION :	<input type="text" value="0x0001"/>
<input type="checkbox"/>	WRITING	KEY VERSION :	<input type="text" value="0x0001"/>
<input checked="" type="checkbox"/>	PACKAGE	KEY VERSION :	<input type="text" value="0x0001"/>

SYSTEM AP MEMORY AREA

<input checked="" type="checkbox"/>	READING	KEY VERSION :	<input type="text" value="0x0001"/>
<input checked="" type="checkbox"/>	WRITING	KEY VERSION :	<input type="text" value="0x0001"/>
<input checked="" type="checkbox"/>	PACKAGE	KEY VERSION :	<input type="text" value="0x0001"/>

DEVICE/TERMINATION KEY

<input checked="" type="checkbox"/>	DEVICE KEY	KEY VERSION :	<input type="text" value="0x0001"/>
<input checked="" type="checkbox"/>	TERMINATION KEY	KEY VERSION :	<input type="text" value="0x0001"/>

OK CANCEL



FIG. 29

PREPARATION OF TRANSPORT CARD

NEXT AP RESOURCE ELEMENT IS READ OUT 800

SAM IP ADDRESS: . . .

AP MEMORY AREA: SERVICE MEMORY AREA ▼

ELEMENT TYPE : IC DIVISION KEY ▼

INSTANCE NUMBER : 0000h ▼

VERSION : 0000h ▼

OK CANCEL

## LIST OF REFERENCES

- 1... communication system
- 2... server apparatus
- 3... IC card
- 5 4... card RW
- 6... PC
- 7... external memory
- 8... SAM module
- 9a, 9b... SAM units
- 10 19a, 19b... ASP server apparatus
- 20... management device
- 51... AP edit tool
- 52... management tool
- 53... card reader/writer
- 15 54... display
- 55... I/F, 56... operating unit
- 57... SAM management function portion
- 58... card management function portion
- 61... memory I/F
- 20 62... external I/F
- 63... memory
- 64... authentication unit
- 65... CPU
- 71... default card
- 25 72... owner card
- 73... user card
- 74... transport card
- 75... AP encryption card